# Innovation without design ? The dynamics of role making and the gradual emergence of the collective designer

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# INNOVATION WITHOUT DESIGN: THE DYNAMICS OF ROLE MAKING AND THE GRADUAL EMERGENCE OF THE COLLECTIVE DESIGNER

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In this paper, we analyze how the intentional lack of an urban design plan enabled a creative process of involvement between multiple actors. The fact that the urban design plan was not represented physically meant that the project's actors had to search for solutions through explorative actions while redefining themselves with respect to one another and their collective role. Their roles in relation to the project were transformed through their inter-actions and the openness of the project itself, which we call a 'spontaneous model'. In our analysis we draw upon Mead's (1934) processual theory of meaning creation through social

interaction. We attempt to understand the phenomena that made it possible to design a new district in a town without using any a priori formal graphic representations, in a one-year pre-design phase.

Traditional urban project design methods demand that a formal graphic representation of the mayor's (or the contractor's) wishes be drawn up before starting off a comprehensive legal-contractual process, which aims above all to exclude any 'arrangements' between contractors and service providers. We show how a process 'without design' became possible through explorative actions and mutual on-going role construction between the actors involved. We also explore the dynamic interactions between the actors and the ways in which they organized themselves and shaped their new identities, which made them play unexpected, decisive new roles towards the fulfilment of the project.

## THEORETICAL CONTEXT

Mead's (1934) pragmatist view of social interaction embedded in time serves as a point of departure for examining the issue of the acquisition of roles and identities in relation to the project. Mead joined process philosophers, such as Heidegger (1927) and Whitehead (1929) in inverting the Cartesian dictum 'Cogito, ergo sum' (Descartes, 1637) in favour of seeing entity as emerging from the process, and not vice versa. Whereas with Whitehead, for example, process is a metaphysical phenomenon, Mead focused on processes of social inter-action. Central to Mead is the notion of meaning, which may be found with several other theorists, such as Heidegger and Schutz (1967), the idea being that acts are oriented towards that which is meaningful. Meaning, however, is not meant to reside in an object as such, but in the gesture towards that object. Thus Mead writes that meaning arises in an actor's expected response to another actor's gesture (see Figure 1 below).

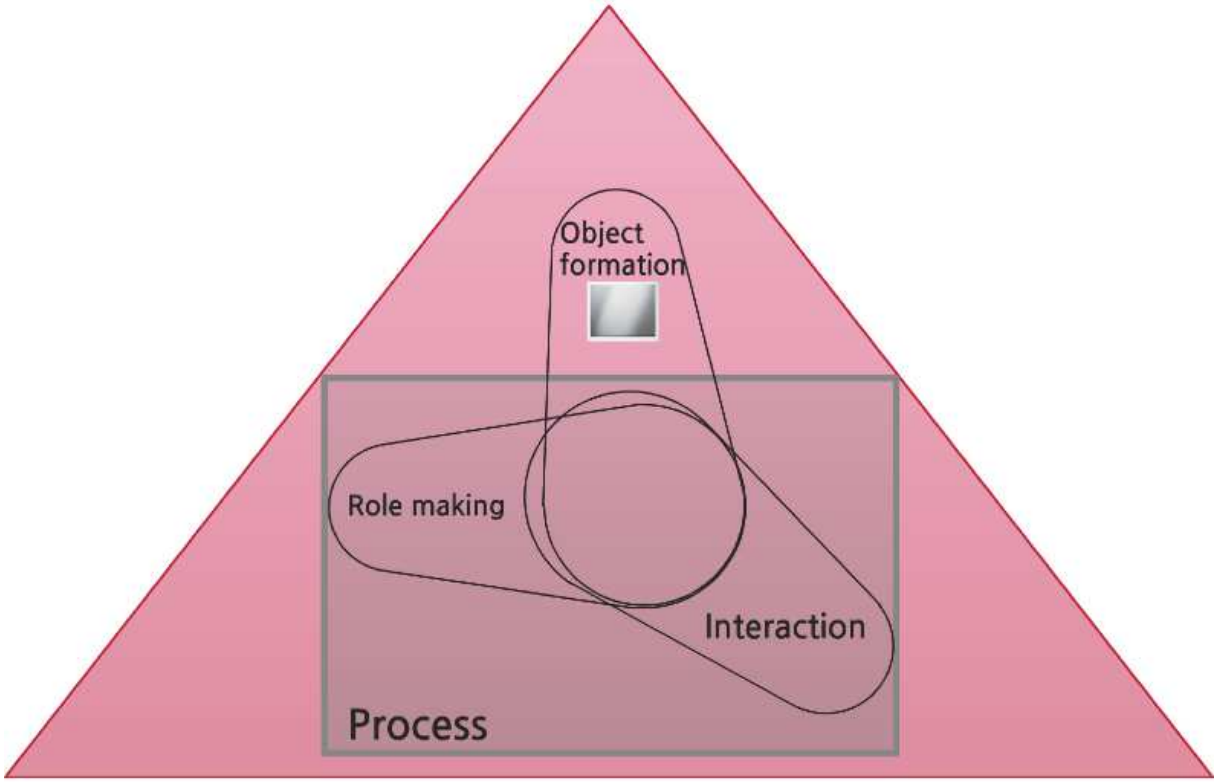


Figure 1: Dynamic process of innovative design

Meaning is created as actors inter-act towards objects. Objects may be temporal products of the actors themselves, as when actors become 'objects' to themselves as gestures fade into the immediate past, thus giving rise to the actor's *self*. Objects may also be objects of inter-action other than inter-acting humans, such as objects of economic exchange. Where Mead takes us one step further in relation to human interaction and objects as opposed to dualist subject-object positions is by assuming that humans act and inter-act *through* objects (Simpson 2009), as the organism takes the roles of things that it manipulates directly, or indirectly, as in perception.

An object may take many different forms, one example being language. The object we assume for our paper is the overall urban development project, which begun largely as an 'open' object for inter-action, in the sense that there were relatively few guidelines as to the

final shape of the project. With time, as inter-actions unfolded, and a collective role of designer began to take hold, the object became gradually more explicit without reaching a closure. Importantly, the shared dynamics introduced by this interactive exchange helped give the object meaning. In other words, the object is the result of responses shared by oneself (actor designer) and the other (actor designer). In Mead's view, this common response acts as a stimulus for the actor ("a stimulus to one's self").

Orr (1990), for example, who studied photocopier maintenance technicians, found that they did not just use the technology. They actually interacted with it and each other. Instead of just acting upon their materials they used their tacit knowledge to let the materials 'speak'. Thus the technicians also formed small communities (communities-of-practice) where collaborative work acted as a powerful medium of transmission of knowledge. Orr talks about how entities – technicians, materials and communities – interact with one another. From a process view, this means that they cannot be analysed as merely acting upon each other, because their interaction changes what they 'are'.

If the object is the result of significant responses found by the actors in reaction to the stimuli of their respective actions, the issue of how the design process emerges must also be addressed, which is what we do by describing below the process as it unfolded.[1] We observed that during a project design and management process, the actors' roles emerged through the dynamics of the action and in response to the openness of the project. The aim is to show that the process, the action and the iterations precede the role making of actors and not the contrary. The argument coincides with Czarniawska's (2004) point, that actions make actors, and not vice versa. For example, a contractor will not take the place of his architect, proclaiming himself to be the architect instead, as he has no legitimacy in that area. However,

[1] For instance by addressing questions such as: "Which actors should be chosen to join the process, knowing that they will set off actions and responses that will become a stimulus for new responses and actions because they will arrive with their own experiences and the roles predetermined by their profession?" This is particularly important in the urban planning sector, because the object in question is the town or, more specifically, the urban project and planning.

if there are no plans, no protocols for organizing the roles and tasks and the sequence of the design process, the same contractor, driven by his responsibility and his vision of the project, enters into action without a defined (or predefined) task and is faced with the task of role making, but without roles being limited to individuals. In this case, the contractor gradually becomes a designer, through the interactions and in the collective action. Becoming a designer, however, does not mean that 'he becomes the designer', but rather that he takes part in creating the role of designer in the team; the team hence has a 'distributed role' of designer. Rather than focus on roles per se, which would suggest a clearly delineated, stable entity, we focus on what (Peterson, 1986) calls 'role making', which he defines as the "process of improvising, exploring, and judging what is appropriate on the basis of the situation and the response of others at the moment" (Peterson, 1986, p. 23).

In collective action for a design process in which the validation protocols are not defined and the objectives are not stable (Le Masson, Weil, Hatchuel, 2010), actors must search to establish roles, without those roles belonging exclusively to some members of the team and not to others. 'Role' we suggest is both individual and collective; it is a resource that individuals enact as they inter-act over an object. Role making, then, can only be seen in action, and cannot be attributed entities as such. When we say, for example, that someone becomes a designer, we mean that he or she enacts the role of designer as a collective role, towards which (s)he contributes. It is important to see roles as continually emergent, between the individuals and the team. Interaction processes help locate the individual within the team while forming the collective role vis-à-vis the object of interaction.

## EMPIRICAL CONTEXT

In 1989, the city of Dunkirk changed its political leadership. Michel Delebarre of the

French Socialist Party was elected mayor and proposed a bold political agenda along a well-known theme: ‘waking up the sleeping beauty of the North’. The idea was that the city needed to find its points of reference again and rediscover its identity. From 1990 until 2004, one of the main political answers to the city’s needs was the Neptune urban development project. The creation of infrastructures, the restructuring of certain districts, the conversion of urban spaces to provide economic value and the creation of public facilities appeared to be perfectly logical solutions.

The design team at the Urban Community of Dunkirk (CUD) gained precious experience and knowledge from these urban projects and even helped it produce an ‘unknown object’, a ‘green’ district called Grand Large. In 2002, Michel Delebarre decided, on the strength of thirteen years of experience of the urban projects in Dunkirk, to service a plot of land (ridding it of pollution, demolitions) in the southern part of the Grand Large area, with the aim of constructing a new district. In 2004, when he appointed a head of major projects for the Dunkirk Urban Community (CUD), the project entered its design phase. However, for the first year, no block plans, design sketches or development plans were drafted.

Jean-Louis Muller, an economist, was one of the main players in this operation. In charge of major projects at the CUD, former director-general of the CUD departments in charge of the Grand Large project, he decided in 2004, at a time when the project’s ‘programme’ or functional unit (Gobin 2010) did not yet exist, that no plans for the roads and local networks should be prepared before the first results of the design for all the ‘built’ elements.

A feature of the process was that they did not draw up a programme in the form of a target framework or specifications. A decision was made not to define precise targets until a later stage, in order to allow time for explorations. By "giving things time" the urban community did not decide on the project’s content or urban form. Nor did it suggest an

organizational framework for the project design, although it proposed ‘conceptual objectives’ for sustainability.

The mayor of Dunkirk gave an interview to two highly specialised professionals in which he described the district he dreamed of for his city, with an unexpected wealth of details. It was this interview that provided the basis for the project design; it was used as a basis for the bidding competition to find an architect-urban developer. The urban design and the design of the buildings for the first phase of the district were not based on the traditionally known, stable specifications, plans or diagrams but were drawn up using a framework produced by an unexpected actor. The latter, faced with the instability produced by the lack of an urban design plan and due to dynamic interactions with the actors took on a new professional identity.

## METHOD

The Grand Large project presented below comprised several design phases. In 2009, the first phase of the urban development project was completed and the first inhabitants moved in. That was when we began the empirical analysis of the data found in this article, which had been collected during the previous period. The first author analysed all the documents produced during the different phases: pre-design; the contracts between the developer-contractor and the real estate developers, the social landlords and the architect-urban developer; the design of all the buildings and infrastructures and the contracts with the urban heating supplier-operator. Nineteen semi-structured interviews were carried out with the key actors, some of which were recorded and re-transcribed.

The initial aim of the interviews was to understand the project’s design process and the actors’ interplay and then, in a second phase, to identify the reasoning behind the creation of certain concepts and the mobilisation of specific knowledge (Hatchuel, 1996; Hatchuel &

Weil, 2000) and finally to identify the dynamics of the interactions between the key actors and how they influenced the role making within the team. At the end of the first phase of the project, an intervention-research approach (Hatchuel & David, 2005) was also adopted, with the aim of becoming actors in the case under analysis rather than simple observers and thus being able to exchange knowledge. We took an active part in over twenty work meetings and certain work groups designed to explore new concepts and mobilise new knowledge were organized with the contractor's permission.

## TIMELINE AND ACTIONS

In 1991, after a competitive bidding process, the architect-urban developer Richard Rogers was selected by the city of Dunkirk to design a Master Plan for the city to 'win back' land with a series of urban projects in harmony with one another and with the site. The Master Plan drawn up in the 1990s set out the major transformations to be made on the site of the former seaport, especially the area to the north of the city that would later be known as Grand Large. The Grand Large area was divided into two. The northern part was destined for public facilities (a contemporary art museum, a bowling alley and a swimming pool) and became a ZAC (urban development zone) in 1995. The southern part of the area also became a ZAC, but not until 2002 and for residential purposes. It is this southern zone that we are interested in here, as this is where the Grand Large green district was to be built. At the time, the ZAC project simply outlined the aim to construct 1,000 units of housing, a few local shops and buildings for other services. The district was not defined as an object or a functional unit (Gobin, 2010), with a value and a potential impact on the rest of the city.

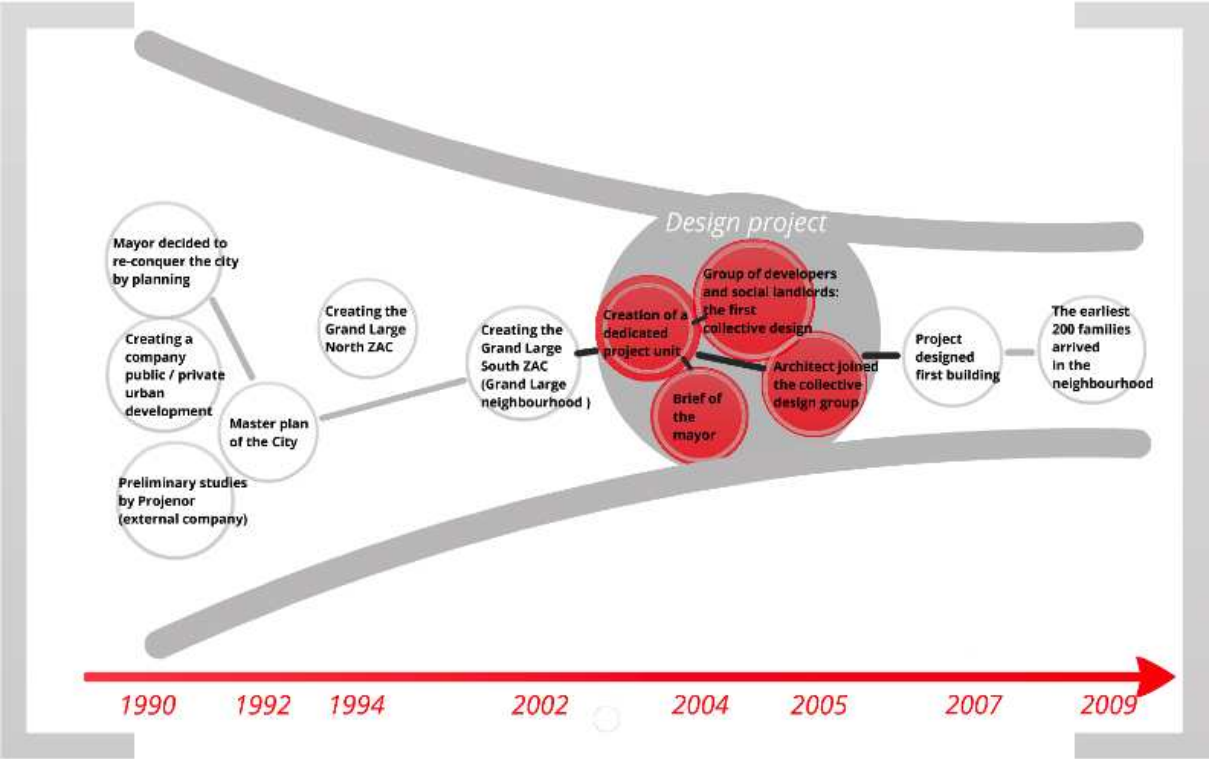


Figure 2: Timeline of the project

Nonetheless, a design process was initiated in 2004, following an interesting path in which some of the actors took on an unexpected role, that of designer-creator. In fact, a widely spread role of 'designer' emerged spontaneously. In 2003, following the demolition of the industrial port facilities of *Chantiers Navals de France*, the previous user of the site, and major works to rid the plot of pollution, the Urban Community of Dunkirk had a 'blank page' to write on. It was an empty, clean, virgin plot, ready to be redeveloped and become part of the city once again.

A year later, a dedicated project unit was created - the DGP (delegation for major projects) - in the form of a cross-disciplinary, project-based structure, which relied on the competencies of the city's technical departments, organized by profession. It was the DGP that opened the design process to unexpected actors during the early stages, i.e. the planning

and creation of the object. This project structure, which blocked any attempts to design the object graphically or schematically, opened up a field of exploration by prompting cooperation between the actors in a new form of partnership.

The Urban Community of Dunkirk (CUD) was faced with an unknown object. It was a form of 'green district', but the notion was not clearly defined. The aims of the district were not fully known and the validation protocol for future targets was totally inexistent. The actors were unsure about the appropriate competencies and professions to be mobilised, given that the object seemed even more systemic than usual. However, this path towards the unknown encouraged the actors in the CUD to look for new forms of cooperation to make the design process emerge.

In 2005, a group of property developers and social landlords was selected and started the design process, focusing on its initial mission, i.e. to balance the project's financial budget. The process involved in defining financial indicators for such a changeable, unknown object forced the property developers and landlords to explore different fields for the object.

The contractor, the property developers and the social landlords had different, albeit complementary, preoccupations in terms of the financial returns from the housing units.

The CUD was concerned to make the city more attractive in the long term by building districts with pleasant living conditions designed to prevent people from moving to peri-urban areas, which are very costly in terms of urban infrastructures. The property developers were anxious to build with the best price-quality ratio and sell quickly with the highest possible margins. On the contrary, the social landlords were concerned to build an object that would last as long as possible, with the least possible maintenance. Their aim was not to sell the buildings, which they owned, but to rent out flats at the official rates for social housing, set by the state. These differences in objectives proved to be an opportunity for exploration, because

the actors' financial concerns guided the priorities in terms of the value of the object. Their collective explorations for 'unknown districts' led them to design-based actions.

In the same year, on the initiative of the CUD and under its authority and supervision, the group of property developers and social landlords launched a competitive bidding process to find an urban developer for the entire project and an architect for the first phase of the district. The grouping paid for and launched the competition, but the winner was selected by the mayor of Dunkirk and president of the urban community.

The DGP asked the property developers and social landlords to work together to define the global object (i.e. buildings, housing and common areas). This dialogue between the property developers and landlords revealed their complementary nature and, as we shall see later, was represented in the object itself. The discussions also altered the architect's technical choices as he had to adapt the project initially submitted for the competition.

When the property developers proposed a technical solution, for example the type of materials for the windows and how they were to be installed, the social landlords immediately focused on the impact of using the material in question (aluminium or wood) with respect to life span and need for maintenance and on specific ways of installing the materials, to guarantee greater security in terms of overall robustness. This encouraged the social landlords to design more elaborate methods and solutions. In short, the property developers were in favour of beautiful works that could be sold easily, whereas the social landlords were in favour of good works that would last a long time. In another example, when the social landlords suggested using unattractive claddings, the property developers found a more aesthetically pleasing alternative, which they presented with a rough sketch of a more contemporary building design and a drawing showing a district with a country-style landscape design.

As a result of working together on the design process, the usually cheaper social housing and the usually more expensive private buildings were designed with the same quality criteria and the same choices were made in terms of materials and solutions. The social landlords and the property developers shared their design capacities, their preoccupations, objectives and experiences. All these elements helped to shape their actions and how they exercised their roles as actors. Although it is true that property developers sometimes work directly for social landlords and design and construct to their orders, it is extremely rare to see these two actors share a design process for different types of housing. Moreover, this new form of cooperation in which the actors often unexpectedly 'changed hats' is not the only surprising thing in this study.

For example in December 2004, the mayor had arrived at a meeting where he thought he had been invited to give his opinion on a certain number of design scenarios for the Grand Large district.

But when he entered the room he found just two people there, a friend and former manager of a town planning company and the town's delegate for major projects. The two men explained that there were no scenarios and that no drawings had been made of the new district. Instead, what they wanted to hear were the mayor's intentions for the future district. Taken by surprise, Michel Delebarre described the still unknown object in his own words, explaining his dreams and, rather than referring to the objectives set out in his political agenda, he ventured into describing certain details of the architecture (e.g. saying he was against buildings with flat roofs), imagining 'life on the move' in the district (objects that would help change people's behaviour, e.g. sunken waste containers), launching key concepts that would open up the designers collective explorations (fighting against rising energy bills; increasing the district's attractiveness in order to avoid urban exodus thanks to private and shared areas, shops, a local job market and public facilities). He was caught up in an

innovative design process and, for a few hours, positioned himself not as a political player but actually as an urban designer. The discussions revealed so much about the desired object that the delegate for major projects decided to use the minutes of the meeting as a basis for the specifications of the private competition for architect-urban developers that was launched a few months later.

On the strength of this creative work, the project team identified the key concept for the district: social mix. It can be summed up in the words of the delegate, Jean-Louis Muller: "being able to find your baby-minder in the district." The initial opening up of the definition of the object and the associated knowledge resulted in unexpected explorations, which in turn enabled certain actors to acquire a new 'collective capacity', i.e. a new role.

Before the architect-urban developer joined the group, the 'consortium' formed by the property developers, social landlords, town planners and the Urban Community, had collectively launched the first conceptual sketches of the new district, without a block plan, a scale model or a plan of the main road networks. Initially, during their round table discussions focusing on financial estimates of the construction costs, they worked on the scale of the built environment and not just the buildings in isolation. This work probably resulted from the growing need to define the object 'district', before going on to the fundamentals of their respective professions, i.e. the financial results, returns on investment, property marketing, maintenance costs, constructions costs, sales price, lead times, market, etc.

The history of their exchanges was particularly marked by the fact that the Urban Community shared the fruits of its experience with the property developers, the town planning firm and the social landlords, by sharing the knowledge it had acquired from research into ecological urban solutions and regarding different forms of collaboration during complex town planning projects.

Collectively, the actors in the grouping explored a new design space, which was relatively unusual compared with their general practices and core activities as it consisted in 'urban spaces and the integration of the built environment in an urban context.' On the basis of their knowledge of the local property market, the social landlords and the property developers, together with the CUD, proposed improvements to the types of housing, its architectural value and potential uses. In this way the actors entered into a 'dialogue' with the object, responding to the need to define the unknown object. "The ground floors could be designed with sufficient volume to house small shops and services." Gradually, they began to share their ideas on the different uses of the district, discussing life 'on the move'. "We should make sure that the entrances to the buildings and the public areas are better designed for the elderly than they are at the moment." "There must be more greenery in the public spaces to offer a more pleasant living environment. This would correspond to people's demands and their idea of living in a village rather than a town and living in a house with a garden." "The people must feel that they are living in an ordinary part of the town; green, functional and on a human scale."

During the presentation phase of the projects submitted for the architecture-urban development competition initiated by the grouping of social landlords and property developers, the latter showed the same commitment and interest as the mayor of Dunkirk (and President of the Urban Community) and his teams. The property developers, social landlords and town planners all studied the different alternatives and discussed the mayor's decision.

When the actors saw the drawings of the project proposed by Nicolas Michelin for the first time and heard him talk about it, this stimulated their collective memory; they recognized Flemish architecture in the gabled buildings facing the docks. It should be said that the Dunkirk area is very close to Flanders, both geographically and culturally.

And yet, despite his inspirational walks along the beach in Malo les Bains, in the centre of Dunkirk, in the areas around the site and the port, Nicolas Michelin had not based the design of the buildings on Flemish architecture at all. He had adapted the form of the buildings to his proposed technological and ecological solution of natural ventilation (and later, hybrid ventilation). With a view to ensuring even distribution of hot air throughout the buildings, he had studied a bioclimatic architectural form, which consisted in narrowing the roofs. The rounded curves were designed to optimise the buildings' heating and ventilation. But the most original feature was to make the most of the strong winds that often blow from the sea in Dunkirk by installing wheels with an air intake function on top of the buildings, as an alternative to mechanical ventilation.

The mayor, the property developers, the CUD, the town planning firm and the social landlords were aware of the virtual nature of the object (Deleuze, 1995; 2004) and were able to imagine it and recognize it outside the context and the 'reality' presented by the architect. They were capable of seeing beyond the concept of bioclimatic housing; they perceived the object 'on the move' and its relationship with the past and the future.

It is interesting to note that the ecological solution proposed by Nicolas Michelin did not actually work from a technical point of view[2]. In fact, he declared that it was a failure, but also that the gables had surpassed his expectations. However, the identity of the architectural form remained. In 2010 and 2011, the specialist French press published a host of articles about green districts, many of them using the image of the Flemish gables[3].

When the architect-urban planner joined the design process, the design grouping, comprising the property developers, the town planning firm, the social landlords and the

2 The *Centre Scientifique et Technique du Bâtiment* (French Scientific and Technical Centre for Building) refused to authorize the installation of the hybrid ventilation system as the technical appraisal had not yet been completed in France. The system could not be used as it was impossible to obtain property insurance without the official certificate of authorization.

3 In December 2010, Nicolas Michelin was awarded an *Equerre d'argent* (silver set square), a prestigious French architecture award given by the Groupe Moniteur, for his housing project for the Grand Large district. The gables were given pride of place in all the communications relating to the award.

CUD, already existed. The actors had begun to adopt a collective stance of designer. This was clearly demonstrated by their ability to judge the work submitted for the architecture-urban development competition and to understand the concepts developed for the buildings and for the district as a whole. When the architect-urban developer joined the design process, he became part of the dynamics of interaction, catalyzing work on the object of the district which, at that point, had only just begun to be defined.

In April 2009, at a conference on sustainable districts in Dunkirk, the architect-urban developer Nicolas Michelin explained that he had been pleasantly surprised by the wealth of interaction between the property developers, social landlords, the CUD and the town planner during the design processes. He showed a photo with all the actors sitting round a table, studying a drawing and designing the project together. Nicolas Michelin had been reticent to begin with, but quickly adapted and started the process of cooperation[4] with the property developers, social landlords, the CUD and the town planning firm (S3D). It is true that architects are not used to working hand in hand on projects with property developers, on the grounds that cooperation of this sort reduces their field of action and their freedom of movement.

The ideas went back and forth between the actors during the design process, with the social landlords and the property developers designing in the same way as the architect. The town planning firm, which is normally only responsible for handling the common areas, roads and networks, also took part in the buildings' architectural design, especially (according to Nathalie Brocq, manager of S3D) to encourage bioclimatic design and the inclusion of the Agenda 21 sustainable development charter drawn up by the social landlords and the property developers, but not always respected by them on the grounds of increased construction costs. The town planning firm, a delegate of the contracting authority (CUD), also adopted a

[4] Nicolas Michelin recently transposed this form of cooperation to a series of urban development projects in Bordeaux.

position as assistant to the contracting authority and beyond that, acted as a designer, particularly by working with the architect on the landscaping of the common areas and the harmonisation of public and private spaces.

## THE COLLECTIVE ROLE OF DESIGNER

In a design process where the object is omnipresent even if it does not exist yet, the interactions between the actors give rise to a collective, social role that can in turn be shared by the actors.

The interaction is key to the creation of a role that is firmly based on concrete design actions, independent of the actors' pre-acquired knowledge or their usual roles. A collective role is not attributed to an individual as such; it is an extrapolated, widely spread, macro role which, during a design process, constantly interacts with the emerging object and can only exist through the actors' interactions and in the presence of the omnipresent yet invisible object. This collective role consists in a set of new capacities acquired by the actors.

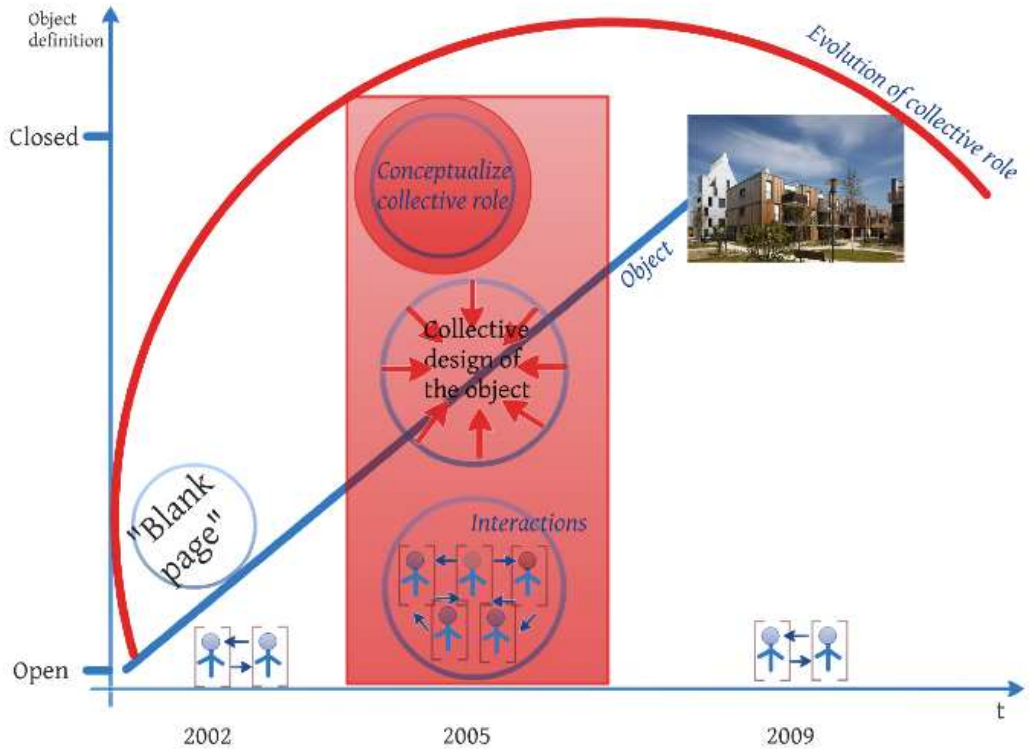


Figure 3: Trajectory of the collective role

The actors are not necessarily aware that they possess these capacities because the interactions, and therefore the social actions, precede the emergence of the role, as they are the result of the actors' questions, answers and gestures, prompted by the object. In our view, a design activity can be initiated even if the knowledge base is inexistent or obsolete since knowledge is one of the results of a series of interactions, which produce learning and experiments. In this context, the collective role gives the actors the incentive and the capacity to explore, as a result of the flow of interest around the object. With this capacity to explore, together with the actors' commitment and 'shared vision', the group can open design spaces and act on these shared spaces. The aim is to question the value of the object and to work on its identity.

This role improves the actors' design actions, helping them to question the concepts, propose solutions, model, test, select, discover, calculate, analyze, compare, experiment and observe uses, organize, prototype, draw, validate and optimize their findings (Le Masson et al, 2006).

When actors adopt the collective role of designer, they position their expertise in terms of the object seen from several angles. They also draw from the capacities and attributes of their own individual roles, recognized knowledge and experience, to feed the group's interactions.

## MAIN CONCLUSIONS

This study helps to understand how the absence of an object definition ('unknown object') and the planning of a design process to account for the 'late' introduction of urban design in the creative process, gave time for collective explorations and for redefining the actors' design capacities by creating a collective role of designer. In this destabilizing design process, the actors defined themselves with respect to one another while inter-acting through the object to create a collective role. They acquired an identity through the action presupposed by their role, their status and their conscious selves as actors. The players were drawn into a dynamic process of innovative design with a phase without urban design, and had to redefine themselves with respect to the other actors; they were almost naturally obliged to redefine themselves in this way.

The interactions and interactive communications between the actors presupposed their identity, not of their conscious selves but of a recognized creative stance and the protagonists' positioning as actors and authors of the project. In our case of a creative design process involving a group of actors with different roles, a collective role emerged, such as described by Mead in 1901. "In this way we play the roles of all our group; indeed, it is only in so far as

we do this that they become part of our social environment – to be aware of another self as a self implies that we have played his role or that of another with whose type we identify him for purposes of intercourse."

In a group of actors, with a shared view of the project, the object as the foundation stone and in which each actor arrives with an individual role, a collective role can indeed emerge and be transmitted, as and when their mutual cooperation advances during the process of creating an unknown object. It is interesting to note that the blending of individual and collective roles helps to construct the object.

In our case, in a context of innovative design, we observed the extent to which an open object can help spark off dynamic co-operation, revealing a widely spread collective role, which helps both to differentiate and to pool the actors' competencies. We observed how the interactions cannot gain in power without the object. The idea, the concept, the dream of the object is always present, giving the direction. We even believe that the object can mirror the process, not only because it is revealed as the process advances but also because, once completed, it can also be a design space. This is particularly true in the case of urban projects, where we are not talking about designing a car, a pen or a yogurt carton but a part of a town, which will go on being transformed by designers and users over the years.

At the same time, if the actors are to create a collective role of designer, they need to consider more than the object in its actualised form; they also need to envisage the 'virtuality' of the object, to use an expression from Deleuze. Another key point concerning urban districts as objects is that they can represent a precious opportunity for the local community to create a design space.

Instead of 'merely' being a district with its own life, where the inhabitants are ongoing designers who are continually shaping it and making it change, it can become an object for continuous exploration and design on the part of a contracting authority. In our case, the CUD

is still keen, in 2012, to capitalize on its design process, to learn lessons from the object and continue to improve the facilities designed in the district. The object has become a learning space and not simply the immovable result of a design process. As an object, it can act on the form taken by a group of actors.

## CONTRIBUTIONS

Using empirical data revealing that an absence of urban design at a strategic point of the project helped to develop the conditions required for an innovative design process to emerge, we propose the continuation of a social behaviourist concept and a complement to mainstream works in innovation studies. Importantly, we argue that the object (or project) cannot be seen as separate from the inter-actions that create it, nor can the formation of roles be seen as separate from the inter-actions and the object. The actors are caught up in the process and it is in fact the latter that shapes the actors and not the contrary, offering them the opportunity to acquire a new professional identity through their actions.

## FIGURES



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